

Warm Up Answers:

1- ~~\$74.52~~ [#] 74.53

2- \$7.20

3- \$10.92

4- [#] 45.60

5- ~~\$31.87~~ [#] 31.88

6- \$1.75

\$33.63

7- \$1.35

\$34.98

8- \$44.98

9- 187/315

10- 4.6%

Problems about percents

Example: 45 is 28% of what number?

DECODE:

of = multiply

is = equals

"what number" = variable
x, n, p

Rewrite & solve:

$$\frac{45}{0.28} = \frac{0.28 \times n}{0.28}$$

$$(160.71 = n)$$

Examples:

1) 35 is 80% of what number?

$$\begin{array}{r} 35 = 0.80 \times n \\ \hline 0.80 \quad 0.80 \\ \hline 43.75 = n \end{array}$$

3) 40 is what percent of 12?

$$\begin{array}{r} 40 = p \times 12 \\ \hline 12 \quad 12 \\ \hline 3.333 = p \\ \hline 333.3\% = p \end{array}$$

2) 16 is 23% of what number?

$$\begin{array}{r} 16 = 0.23 \times n \\ \hline 0.23 \quad 0.23 \\ \hline 69.57 = n \end{array}$$

4) 7 is what percent of 36?

$$\begin{array}{r} 7 = p \times 36 \\ \hline 36 \quad 36 \\ \hline 0.194 = p \\ \hline 19.4\% = p \end{array}$$

**complete the rest of the examples on your own
(#5 - 11)**

More Percentage Problems

- 1) 20 is what percent of 42?
- 2) What number is 10% of 73?
- 3) 61 is 16% of what number?
- 4) What percent of 82 is 97?

5) 19.2% of 56 is what number?

6) 73 is 120% of what number?

7) What is 32% off of 47.5?

8) What is 17% off of 68?

9) There is a sale on shirts. They were originally \$21.50. They are now \$17.95. What percentage are you SAVING?
(Find the percent off)

Do the review worksheet

$$\textcircled{1} \frac{40}{92} = \frac{p \times 92}{92}$$

$$\textcircled{3} \frac{65}{0.74} = \frac{\cancel{0.74} \times n}{\cancel{0.74}}$$

$$\textcircled{6} \frac{115}{1.40} = \frac{\cancel{1.40} \times n}{\cancel{1.40}}$$

WARM UP:

1- 43.48%

2- 67.8%

3- 87.84%

4- 138.64%

5- 13.22

6- 82.14

7- 197.15

8- 25.52

9- 73.33

$$n = 0.30 \times 226$$

$$\textcircled{4} \frac{p \times \cancel{88}}{\cancel{88}} = \frac{122}{88}$$

Finding the percent that you are saving (% off)

Example 1: A computer is on sale for \$650. It was originally \$875.50. What percent are you SAVING? (What is the percent off?)

SALE : \$650

$\frac{3}{4}$

ORIG : \$875.50

$$\frac{\text{AMT. SAVED}}{\text{ORIG}} = \frac{\$225.50}{\$875.50} = 25.76\%$$

Example 2:

You want to buy a new cell phone. It usually costs \$215. However if you sign up for a new 2 year contract, you will get the phone for \$50. What percentage are you **saving** on the phone?

ORIG: \$215

SALE: \$50
165

$$\boxed{\frac{\text{AMT SAVED}}{\text{ORIG}}} = \frac{165}{215} = 0.7674$$

76.74%

Examples:

**1) Originally: \$657.22
Sale price: \$500**

**2) Originally: \$34.55
Sale price: \$25.00**

**3) Originally: \$126.32
Sale price: \$55.33**

**4) Originally: \$300
Sale price: \$125**

Do the advertisement activity!

